Alabama Department of Environmental Management

MAJOR SOURCE OPERATING PERMIT

Permitee: **DCP Operating Company, L.P.**

Facility Name: **Mobile Bay Gas Treating & Processing Facility**

Facility No.: 503-8085

Location: 5300B Highway 188; Mobile County, Coden, AL

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

Issuance Date: *Draft 7/10/2017*
Expiration Date:

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1. Transfer	
This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.	Rule 335-3-16-.02(6)
2. Renewals	
An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.	Rule 335-3-16-.12(2)
The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.	
3. Severability Clause	
The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.	Rule 335-3-16-.05(e)
4. Compliance	
(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.	Rule 335-3-16-.05(f)
(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.	Rule 335-3-16-.05(g)

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5. Termination for Cause This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.	Rule 335-3-16-.05(h)
6. Property Rights The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-16-.05(i)
7. Submission of Information The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.	Rule 335-3-16-.05(j)
8. Economic Incentives, Marketable Permits, and Emissions Trading No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.	Rule 335-3-16-.05(k)
9. Certification of Truth, Accuracy, and Completeness: Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Rule 335-3-16-.07(a)
10. Inspection and Entry Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental Management and EPA to conduct the	Rule 335-3-16-.07(b)

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following: (a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit; (b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit; (c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit; (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.	
11. Compliance Provisions (a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. (b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	Rule 335-3-16-.07(c)
12. Compliance Certification On, or before, ???? of each year, a compliance certification shall be submitted. (a) The compliance certification shall include the following: (1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status; (3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements); (4) Whether compliance has been continuous	Rule 335-3-16-.07(e)

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or intermittent; (5) Such other facts as the Department may require to determine the compliance status of the source; (b) The compliance certification shall be submitted to: Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463 and to: Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303	
13. <u>Reopening for Cause</u> Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit: (a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire. (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit. (c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.	Rule 335-3-16-.13(5)

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14. Additional Rules and Regulations This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.	§22-28-16(d), Code of Alabama 1975, as amended
15. Equipment Maintenance or Breakdown (a) In the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following: (1) Identification of the specific facility to be taken out of service as well as its location and permit number; (2) The expected length of time that the air pollution control equipment will be out of service; (3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period; (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; (5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period. (b) In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been corrected.	Rule 335-3-1-.07(1) & Rule 335-3-1-.07(2)

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16. Operation of Capture and Control Devices All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.	§22-28-16(d), Code of Alabama 1975, as amended
17. Obnoxious Odors This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.	Rule 335-3-1-.08
18. Fugitive Dust (a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc. (b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds: (1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic; (2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created; (3) By paving; (4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions; Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be	Rule 335-3-4-.02

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employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.	
19. Additions and Revisions	
Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.	Rule 335-3-16-.13 & Rule 335-3-16-.14
20. Recordkeeping Requirements	
(a) Records of required monitoring information of the source shall include the following:	Rule 335-3-16-.05(c)(2)
(1) The date, place, and time of all sampling or measurements;	
(2) The date analyses were performed;	
(3) The company or entity that performed the analyses;	
(4) The analytical techniques or methods used;	
(5) The results of all analyses; and	
(6) The operating conditions that existed at the time of sampling or measurement.	
(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.	
21. Reporting Requirements	
(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).	Rule 335-3-16-.05(c)(3).
(b) Deviations from permit requirements shall be	

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reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.	
22. <u>Emission Testing Requirements</u>	
Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.	Rule 335-3-1-.05(3) & Rule 335-3-1-.04(1)
The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.	
To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:	
(1) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.	Rule 335-3-1-.04
(2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).	
(3) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.	
(4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined	Rule 335-3-1-.04

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on a case-by-case basis. All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.	
23. Payment of Emission Fees Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code R. 335-1-7-.04.	Rule 335-1-7-.04
24. Other Reporting and Testing Requirements Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.	Rule 335-3-1-.04(1)
25. Title VI Requirements (Refrigerants) Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F. No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F. The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.	40 CFR Part 82
26. Chemical Accidental Prevention Provisions If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then: (a) The owner or operator shall comply with the	40 CFR Part 68

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provisions in 40 CFR Part 68. (b) The owner or operator shall submit one of the following: (1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or, (2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.	
27. Display of Permit This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.	Rule 335-3-14-.01(1)(d)
28. Circumvention No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.	Rule 335-3-1-.10
29. Visible Emissions Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.	Rule 335-3-4-.01(1)
30. Fuel-Burning Equipment (a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.03.	Rule 335-3-4-.03

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(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-.01.	Rule 335-3-5-.01
31. Process Industries – General	
Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.04.	Rule 335-3-4-.04
32. Averaging Time for Emission Limits	
Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.	Rule 335-3-1-.05
33. Compliance Assurance Monitoring (CAM)	
Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.	
(a) Operation of Approved Monitoring	40 CFR 64.7
(1) *Commencement of operation*. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).	
(2) *Proper maintenance*. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.	
(3) *Continued operation*. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in	

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continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. (4) *Response to excursions or exceedances.* (a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.	

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(b) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.	
(5) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.	
(b) Quality Improvement Plan (QIP) Requirements	40 CFR 64.8
(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-	

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specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

(2) Elements of a QIP:

(i) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.

(ii) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

(I) Improved preventive maintenance practices.

(II) Process operation changes.

(III) Appropriate improvements to control methods.

(IV) Other steps appropriate to correct control performance.

(V) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(ii)(I) through (IV) above).

(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator

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make reasonable changes to the QIP if the QIP is found to have: (i) Failed to address the cause of the control device performance problems; or (ii) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. (5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.	
(c) Reporting and Recordkeeping Requirements	40 CFR 64.9
(1) General reporting requirements (i) On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code R. 335-3-16-.05(c)3. (ii) A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code R. 335-3-16-.05(c)(3). and the following information, as applicable: (I) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or	

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exceedances, as applicable, and the corrective actions taken; (II) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and (III) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. (2) General recordkeeping requirements. (i) The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code R. 335-3-16-.05(c)2. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).	

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(ii) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	
(d) Savings Provisions	40 CFR 64.10
(1) Nothing in this part shall:	
(i) Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.	
(ii) Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but	

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	not limited to sections 114(a)(1) and 504(b), or state law, as applicable.	
(iii)	Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.	

Summary Page for Hot Oil Heater

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(H-1)	21.726 MMBtu/Hour, Natural Gas-Fired, Hot Oil Heater	PM	0.356 Lbs/ MMBTU of heat input (~7.74 Lbs/hr)	Rule 335-3-4-.03(1)
		SO_2	1.8 Lbs/MMBTU of heat input (~39.11 Lbs/hr)	Rule 335-3-5-.01(1)(a)
			And	
			Burned natural gas as fuel	§60.41c 40 CFR 60 Subpart Dc
		HAPs	Work Practice Standard	§63.7485,§63.7490(a)(2), (b), §63.7500(a)(1), 40 CFR 63, Subpart DDDDD
		Opacity	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
			AND	
			No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)

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Applicability	
1. The heater shall be subject to the requirements of ADEM Admin. Code R. 335-3-4-.01, "*Visible Emissions*" and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01(1)
2. The heater shall be subject to the requirements of ADEM Admin. Code R. 335-3-4-.03(2), "*Fuel Burning Equipment*" for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.03(1)
3. The heater shall be subject to the requirements of of the ADEM Admin. Code R. 335-3-16, "*Major Source Operating Permits*" and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03
4. The heater shall be subject to the requirements specified in 40 CFR Part 60, Subpart A, "*General Provisions*", 40 CFR 60 Subpart Dc, "*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*" and the requirements specified in this subpart of this permit.	Rule 335-10-.02(2)(c) §60.40c(a)
5. The heater shall be a new affected source at a major source of HAPs that is subject to the requirements specified in 40 CFR 63 Subpart DDDDD, "*National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*" [Boiler MACT] and the requirements specified in this subpart of this permit.	§63.7485 §63.7490(a)(2), (b) §63.7495(a)
6. Each heater shall be subject to the requirements of 40 CFR 63 Subpart A, "*General Provisions*", as specified in Table 10 of the Boiler MACT and in the requirements specified in this subpart of this permit.	§63.7565 Table 10, Boiler MACT
Emissions Standards	
1. Visible emissions from the heater shall meet the opacity standards specified in proviso 1(a) and (b) of this section of this subpart.	Rule 335-3-4-.01
(a) Except for one 6-minute period during any 60-minute period, each unit shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)

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(b) At no time shall a unit discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. The heater shall comply with the following requirements:	
(a) Particulate Matter (PM) emissions shall not exceed 7.74 pounds per hour (Lbs/Hour).	Rule 335-3-4-.03(1)
(b) Sulfur Dioxide (SO_2) emissions shall not exceed 39.17 Lbs/Hour.	Rule 335-3-5-.01(1)(a)
3. The following requirements shall be met to comply with the Boiler MACT:	
(a) The heater must be designed to burn gas 1 fuel such as natural gas, refinery gas and/or other gas 1 fuels.	§63.7499(l) §63.7575
(b) Except as allowed in §63.7500(b), a tune-up shall be completed as specified in §63.7540. If a tune-up is delayed until the next scheduled or unscheduled shutdown of the unit an inspection of the burners is required.	Table 3, No. 3 Boiler MACT §63.7500(a)(1), (b) §63.7540(a)(10)
(c) Each heater must be operated and maintained, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	§63.7500(a)(3)
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined as needed using Method 9 or Method 22 of 40 CFR 60, Appendix A.	Rule 335-3-4-.01(2)
2. Initial and subsequent tune-ups for the heater shall comply with the procedures specified in §63.7540(a)(10)(i) through (vi).	§63.7510(g) §63.7515(d) §63.7540(a)(10)
3. During the tune-ups the CO concentration in the effluent stream shall be measured using a portable CO analyzer or other methods and procedures approved by the Department.	§63.7540(a)(10)(v)
4. The fuel gas shall be tested for its BTU heat content and hydrogen sulfide (H_2S) content in accordance to the requirements specified in proviso 4(a) through (c) of this section of this subpart.	Rule 335-3-16-.05(c)(1)(i)

Provisos for Hot Oil Heater

Federally Enforceable Provisos	Regulations
(a) The sample shall be analyzed for its heat content by utilizing the ASTM Analysis Method D1826-77 or equivalent method. [Heat Content (Btu/Scf)]	
(b) The sample shall be analyzed for its H_2S content by utilizing the Tutwiler procedures found in 40 CFR §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture. [H_2S Content (Mol% or ppmv)]	
(c) The methods and procedures used above may be modified upon receiving Departmental approval.	
(d) As an alternative to testing specified in Proviso 4 (a) and (b) of this section of this subpart, the facility may elect to keep a copy of the fuel gas supplier's certification, including the fuel gas supplier's name, the potential sulfur emission (ng/J heat input)m and the methods used to determine the sulfur emission rate of the fuel.	
Emission Monitoring	
1. The heater shall undergo an annual tune-up while burning the type of fuel that provided the majority of the heat input to the process heater over the 12 months prior to the tune-up.	§63.7540(a)(10)
(a) As applicable, inspect the burner, and clean or replace any components of the burner as necessary	§63.7540(a)(10)(i)
(1) Burner inspections may be performed any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown	
(2) Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.	

Provisos for Hot Oil Heater

Federally Enforceable Provisos	Regulations
(3) At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment	
(b) Inspect the flame pattern, as applicable, and adjust (adjustments must be consistent with manufacturer's specifications) the burner as necessary to optimize the flame pattern.	§63.7540(a)(10)(ii)
(c) Inspect the system controlling the Air-to-Fuel ratio, as applicable, and ensure that it is properly calibrated and functioning. Except that units producing electricity may delay the inspection as allowed under proviso 1(a)(2) of this section of this permit.	§63.7540(a)(10)(iii)
(d) Optimize total emissions of CO (optimization should be consistent with the manufacturer's specifications, if available)	§63.7540(a)(10)(iv)
(e) Measure the concentrations (on a dry or wet basis, as long as it is the same basis before and after the adjustments are made) in the effluent stream of CO in parts per million, by volume, (ppmv) and oxygen (O_2) in volume percent, before and after the adjustments are made.	§63.7540(a)(10)(v)
2. Subsequent tune-ups on the heater shall be conducted as follows:	
(a) Annually, but no more than 13 months after the previous tune-up	Table 3, No. 3 §63.7515(d)
(b) Provided that a unit was not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.	§63.7540(a)(13)
3. A burner inspection is required at least once every 72 months for process heaters in which a tune-up has been delayed until the next scheduled or unscheduled shutdown of the unit.	§63.7540(a)(12)
4. The heat content and H_2S content testing shall consist of capturing a representative sample of the fuel gas stream at a frequency of no less than once each six (6) months.	Rule 335-3-16-.05(c)(1)(i)

Provisos for Hot Oil Heater

Federally Enforceable Provisos	Regulations
Record Keeping and Reporting Requirements	
1. In order to comply with the Boiler MACT, the following recordkeeping and reporting requirements shall be met:	
(a) The following notifications shall be submitted:	§63.7545
(1) Notifications as specified in §63.7545(a)	§63.7545(a)
(2) Notification of alternative fuel usage during periods of natural gas curtailment or supply interruption within 48 hours of the declaration of each such period	§63.7545(f)
(b) The following records shall be maintained:	§63.7555
(1) A copy of each notification and report to comply with this subpart according to §63.10(b)(2)(xiv)	§63.7555(a)(1)
(2) Records of compliance demonstrations as required by §63.10(b)(2)(vii)	§63.7555(a)(2)
(3) If an alternative fuel is used in the process heater during periods of gas curtailment or gas supply emergencies, the following records shall be maintained:	§63.7555(h)
(i) Record of the total hours per calendar year that the alternative fuel is burned	
(ii) Record of the total hours per calendar year that the unit operated	
(4) A record of burner inspection shall be maintained for units with delayed tune-ups	§63.7550(c)(5)(xiv)
(c) An annual report containing the following data shall be retained onsite and submitted if requested:	§63.7550(b)
(1) The CO and O_2 concentrations in the effluent measured at high fire or typical operating load, before and after the tune-up. [CO Concentration (ppmv)] [O_2 Concentration (% Vol)]	§63.7540(a)(10)(vi)(A)
(2) A description of any corrective actions taken as part of the tune up.	§63.7540(a)(10)(vi)(B)

Provisos for Hot Oil Heater

Federally Enforceable Provisos	Regulations
(3) The type and amount of fuel used over the previous 12 months but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.	§63.7540(a)(10)(vi)(C)
(d) The annual Compliance Report shall be submitted according to the following reporting requirements:	§63.7550(b)
(1) The first compliance report must cover the period beginning January 31, 2016 (the compliance date) and ending December 31 within a year after the compliance date. The report must be postmarked or submitted no later than January 31.	§63.7550(b)(1), (2), Table 9, Boiler MACT
(2) Each subsequent compliance report must cover the annual reporting period from January 1 to December 31 and the report must be postmarked or submitted no later than January 31.	§63.7550(b)(3), (4), Table 9, Boiler MACT
(3) Each compliance report shall include the requirements specified in §63.7550(c)(5)(i) through (iii), (xiv) , and (xvii).	§63.7550(c)(1)
(4) The reports must be submitted electronically to the EPA via CEDRI except as allowed and a copy of the report must be submitted to the Department for tracking purposes.	§63.7550(h)(3)
2. A record of the information specified in provisos 2(a) through (f) of this section of this subpart shall be maintained and made available for inspection.	
(a) The date, starting time and duration of each deviation from the requirements specified in this subpart along with the cause and corrective actions taken.	Rule 335-3-16-.05(c)(2)
(b) Date and type of heater maintenance that affects air emissions	Rule 335-3-16-.05(c)(2)
(c) Fuel gas Btu content [Btu Content (Btu/Scf)]	Rule 335-3-16-.05(c)(2)
(d) Fuel gas hydrogen sulfide content	Rule 335-3-16-.05(c)(2)

Provisos for Hot Oil Heater

Federally Enforceable Provisos	Regulations
[H_2S Content (Mole % or ppmv)]	
(e) Fuel gas consumption of Heater [Volume (MScf/Month)]	§60.48c(g)(2)
(f) Operating hours of Heater [Hours (Hours/Month)]	Rule 335-3-16-.05(c)(2)
3. Periodic Monitoring Reports (PMR) meeting the requirements specified in provisos 3(a) through (c) of this section of this subpart shall be submitted to the Department.	
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i)
(1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit	
(2) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.	
(b) Except as provided for in proviso 3(d) of this section, the following information shall be included with each deviation:	Rule 335-3-16-.05(c)(2), & Rule 335-3-16-.05(c)(3)(i)
(1) Permit requirement	
(2) Date	
(3) Starting time	
(4) Duration	
(5) Actual quantity of pollutant or parameter	
(6) Cause	
(7) Actions taken to return to normal operating conditions	

Provisos for Hot Oil Heater

Federally Enforceable Provisos	Regulations
(8) Total operating hours of the affected source during the reporting period	
(9) Total hours of deviation events during the reporting period	
(10) Total hours of deviation events that occurred during startups, shut downs, and malfunctions during the reporting period	
(c) Each report shall cover a calendar semi-annual period and shall be submitted using the following reporting schedule: Reporting Period — Submittal Date January 1-June 30 — July 31 July 1-December 31 — January 31	
(d) The report content specified in proviso 3(a) of this section may be modified upon receipt of Departmental approval.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i)
4. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(ii)

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Summary Page for the Emergency Diesel Engines

Permitted Operating Schedule/Unit

Emergency Operating Schedule:	2,190 Hours Per 12 Consecutive Months Rule 335-14-.04 [Anti-PSD Limit]
Permitted Non-Emergency Operating Schedule:	100 Hours/Year or less for each engine (maintenance and readiness testing, emergency demand response, and non-emergency situations) [§63.6640(f)(2), RICE MACT]
	≤ 50 Hours/Year or less for each engine during Non-emergency situations (counted as part of the 100 Hour/Year) [§63.6640(f)(3), RICE MACT]

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(P-903A)	265 BHP, Detroit Diesel, Fire Water Pump Engine	HAPs	Work or Management Practices	§63.6585(b) §63.6590(a)(1)(ii) §63.6602
(P-903B)	265 BHP, Detroit Diesel, Fire Water Pump Engine	Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)
Emergency Generator	380 BHP, Cummins LTA-10G1, Diesel Blackstart, Emergency Electrical Generator Engine			

Provisos for Emergency Diesel Engines

Federally Enforceable Provisos	Regulations
Applicability	
1. Each emergency diesel engine is subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01, "*Visible Emissions"* and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
2. Each emergency diesel engine has enforceable limits in place in order to prevent it from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04, "*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration (PSD)]*."	Rule 335-14-.04
3. Each emergency diesel engine is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits"* and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03
4. Each emergency diesel engine is subject to the applicable requirements of 40 CFR 63 Subpart A, "*General Provisions*" and the requirements specified in this subpart of this permit.	§63.6665, Table 8
5. Each emergency diesel engine is subject to the major source requirements of 40 CFR 63 Subpart ZZZZ, "*National Emission Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE)*" [RICE MACT] and the requirements specified in this subpart of this permit.	§63.6585(c) §63.6590(a)(1)(ii)
Emissions Standards	
1. Visible emissions from each emergency engine shall meet the opacity standards specified in proviso 1(a) and (b) of this section of this subpart. (a) Except for one 6-minute period during any 60-minute period, the unit shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)
2. Each emergency diesel engine shall not operate during emergencies for more than 2,190 hours per twelve consecutive months.	Rule 335-14-.04 [Anti-PSD Limit]
3. Each emergency diesel engine shall adhere at all times to the following operating requirements for existing	§63.6602 Table 2c, Item No. 1

Provisos for Emergency Diesel Engines

Federally Enforceable Provisos	Regulations
compression ignition engines located at a major source of HAPs:	§63.6605(a)
(a) The oil and oil filter shall be changed according to the schedule specified in provisos 3(a)(1) OR 3(a)(2) of this section:	
(1) Every 500 hours of operation, or annually, whichever comes first	Table 2c, Item No. 1(a)
OR	
(2) According to the Oil Analysis Program outlined in §63.6625(i) or (j)	§63.6625(i) or (j)
(b) Inspect the Air Cleaner every 1,000 hours of operation, or annually, whichever comes first	Table 2c, Item No. 1(b)
(c) Inspect all hoses and belts according to provisos 3(c)(1) or 3(c)(2) of this section:	
(1) Every 500 hours of operation, or annually, whichever comes first (hoses and belts shall be replaced as necessary)	Table 2c, Item No. 1(c)
OR	
(2) Petition the Administrator pursuant to the requirements of §63.6(g) for alternative work practices.	Table 2c, Footnote 3
(d) The management practices specified in provisos 3(a) through (c), may be delayed if the unit is operating during an emergency situation, or if the required management practices would result in an unacceptable risk. In this case, the required management practice(s) shall be conducted as soon as possible.	Table 2c, Footnote 1
4. Each emergency diesel engine must comply with the following requirements:	
(a) The requirements specified under §63.6640(f)	§63.6640(f)
(b) Must be equipped with a non-resettable hour meter if one is not already installed	§63.6625(f)
(c) During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a	§63.6625(h) Table 2c, RICE MACT

Provisos for Emergency Diesel Engines

Federally Enforceable Provisos	Regulations
period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply	
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined as needed using Method 9 or Method 22 of 40 CFR 60, Appendix A.	Rule 335-3-4-.01(2)
Emission Monitoring	
1. The facility shall comply with one of the following work or management practices to demonstrate continuous compliance with the RICE MACT:	Rule 335-3-16-.05(c)(1) §63.6640(a) §63.6625(e)(2) Table 6, No. 9
(a) Operate and maintain the stationary engine according to the manufacturer's emission-related operation and maintenance instructions	
OR	
(b) The facility may develop and follow its own maintenance plan, provided this plan ensures, to the extent practicable, the operation and maintenance of the unit in a manner consistent with good air pollution practices.	
2. Each unit shall be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.	§63.6605(b)
Record Keeping and Reporting Requirements	
1. A record of the information specified in provisos 1(a) through (h) of this section of this subpart shall be maintained and made available in a form suitable for inspection for a period of five (5) years.	
(a) The date, starting time and duration of each deviation from the requirements specified in this subpart along with the cause and corrective actions taken.	Rule 335-3-16-.05(c)(2) §63.6655(a)(1) §63.6660(a) & (b)
(b) The date, starting time, and duration of each malfunction, along with steps taken to minimize emissions, and corrective actions taken.	Rule 335-3-16-.05(c)(2) §63.6655(a)(2) & (5) §63.6660(a) & (b)
(c) Date and type of engine maintenance that affects	Rule 335-3-16-.05(c)(2) §63.6655(a)(4), (d), & (e)(2)

Provisos for Emergency Diesel Engines

Federally Enforceable Provisos		Regulations
	air emissions	§63.6660(a) & (b)
(d)	A copy of the fuel gas certification shall be maintained onsite.	Rule 335-3-16-.05(c)(2) §63.6660(a) & (b)
(e)	Operating hours of engine for each type of use: [Hours (Hours/Month)] [Hours (Hours/12 consecutive months)]	Rule 335-3-16-.05(c)(2) §63.6655(f) §63.6660(a) & (b) Rule 335-14-.04 [Anti-PSD Limit]
(f)	Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation	§63.6655(f)(1)
(g)	These records may be kept in electronic form, provided that they are readily accessible. Alternatively, they may be kept in hardcopy form.	Rule 335-3-16-.05(c)(2) §63.6660(a), (b), & (c)
(h)	Each occurrence when a visible emission observation was conducted on an engine.	Rule 335-3-16-.05(c)(2)
3. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.		Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(ii) §63.6640(b) §63.6650(f)

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Summary Page for Generator Engines

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(G-1) **(G-2)** **(G-3)** **(G-4)** **(G-5)** **(G-6)** **(G-7)** **(G-8)** **(G-9)** **(G-10)**	(10) 5,800 BHP, Wartsilla, 18V28SG, 4SLB, Natural Gas, Generator Engines with selective catalytic oxidation (SCO)	CO†	<= 8.50 Lbs/Hour	Rule 335-3-14-.04 Anti-PSD Limit
		NO_X†	<= 8.50 Lbs/Hour	Rule 335-3-14-.04 Anti-PSD Limit
		VOC†	<= 4.29 Lbs/Hour	Rule 335-3-14-.04 Anti-PSD Limit
		Opacity†	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
			AND	
			No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)
	Cumulative Emissions for All Generator Engines	CO	<= 150 Tons/12 Months	Rule 335-3-14-.04 Anti-PSD Limit
		NO_X	<= 150 Tons/12 Months	Rule 335-3-14-.04 Anti-PSD Limit

†Limits for Each Engine

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
Applicability	
1. Each generator engine shall be subject to the requirements of ADEM Admin. Code R. 335-3-4-.01, "*Visible Emissions*" and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01(1)
2. The generator engines have enforceable limits in place in order to prevent them from being subject to the provisions of *ADEM Admin. Code R.* 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas" [Prevention of Significant Deterioration (PSD)].	Rule 335-14-.04 Anti-PSD Limit
3. Each generator engine shall be subject to requirements specified in ADEM Admin. Code R 335-3-16, "*Major Source Operating Permits*" and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03
4. Each generator engine shall be subject to the requirements specified in 40 CFR Part 64, "*Compliance Assurance Monitoring (CAM)*" as indicated in proviso 33 of the General Permit Provisos subpart and in this subpart of this permit.	§64.2(a)
Emissions Standards	
1. Visible emissions from each generator engine shall meet the opacity standards specified in proviso 1(a) and (b) of this section of this subpart.	Rule 335-3-4-.01(1)
(a) Except for one 6-minute period during any 60-consecutive minute period, each unit shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the unit discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. Each generator engine shall comply with the following requirements:	
(a) Carbon monoxide (CO) emissions shall not exceed 8.50 pounds per hour (Lbs/Hour).	Rule 335-3-16-.05(a) Rule 335-3-14-.04 Anti-PSD Limit

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
(b) Nitrogen oxide (NO_X) emissions shall not exceed 8.50 Lbs/Hour.	Rule 335-3-16-.05(a) Rule 335-3-14-.04 Anti-PSD Limit
(c) Volatile organic compound (VOC) emissions shall not exceed 4.29 Lbs/Hour.	Rule 335-3-16-.05(a) Rule 335-3-14-.04 Anti-PSD Limit
(d) At all times when an engine is in operation, the engine shall be operated with its entire exhaust gas stream passing through a catalytic converter.	Rule 335-3-16-.05(a) Rule 335-3-14-.04 Anti-PSD Limit §64.2(a)
(1) The inlet temperature of the catalyst bed shall be maintained at a temperature that is greater than or equal to 500 °F and less than or equal to 1,000 °F	
(2) The catalytic converter shall be maintained and operated in a manner so as to minimize the emissions of air contaminates.	
3. The cumulative emissions from all generator engine shall comply with the following emissions limits:	
(a) Total CO emissions shall not exceed 150 tons during any twelve consecutive months.	Rule 335-3-14-.04 Anti-PSD Limit
(b) Total NO_X emissions shall not exceed 150 tons during any twelve consecutive months.	Rule 335-3-14-.04 Anti-PSD Limit
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined using Method 9 or Method 22 of 40 CFR 60, Appendix A.	Rule 335-3-4-.01(2)
2. Performance testing shall be conducted on the generator engines in accordance to the methods and procedures specified below:	
(a) NO_X testing for each engine shall utilize one of the following methods:	Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05
(1) 40 CFR 60 Appendix A, Method 7	
(2) 40 CFR 60 Appendix A, Method 7A	
(3) 40 CFR 60 Appendix A, Method 7B	

Provisos for Generator Engines

Federally Enforceable Provisos			Regulations
	(4)	40 CFR 60 Appendix A, Method 7C	
	(5)	40 CFR 60 Appendix A, Method 7D	
	(6)	40 CFR 60 Appendix A, Method 7E	
	(7)	Other methodology approved by the Department.	
(b)	CO testing for each engine shall utilize one of the following methods:		Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05
	(1)	40 CFR 60 Appendix A, Method 10	
	(2)	40 CFR 60 Appendix A, Method 10A	
	(3)	40 CFR 60 Appendix A, Method 10B	
	(4)	Other methodology approved by the Department.	
(c)	VOC testing for each engine shall utilize one of the following methods:		Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05
	(1)	40 CFR 60 Appendix A, Method 18	
	(2)	40 CFR 60 Appendix A, Method 25	
	(3)	40 CFR 60 Appendix A, Method 25A	
	(4)	40 CFR 60 Appendix A, Method 25B	
	(5)	40 CFR 60 Appendix A, Method 25C	
	(6)	40 CFR 60 Appendix A, Method 25D	
	(7)	40 CFR 60 Appendix A, Method 25E	
	(8)	Other methodology approved by the Department.	
(d)	The methods and procedures that are utilized may be modified upon receiving Departmental approval.		

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
3. Periodic testing shall be conducted on the generator engines in accordance to the methods and procedures specified below: (a) EPA's "Conditional Test Method (CTM-034)" AND (b) 40 CFR Part 60 Appendix A, Method 19 OR (c) Other methodology approved by the Department (d) The methods and procedures that are utilized may be modified upon receiving Departmental approval.	
4. The fuel gas burned in the generator engines shall be tested for its BTU heat content by utilizing the ASTM Analysis Method D1826-77 or an equivalent method. [Heat Content (BTU/Scf)]	Rule 335-3-16-.05(c)(1)(i)
Emission Monitoring	
1. Periodic monitoring for each generator engine shall be conducted as specified in *Appendix A* of this permit.	Rule 335-3-16-.05(c)(1) Rule 335-3-1-.04 Rule 335-3-16-.05(c)(1)(ii)
2. Periodic monitoring and Compliance Assurance Monitoring (CAM) for each generator engine's catalytic converter unit shall be conducted as specified in *Appendix B* of this permit.	Rule 335-3-16-.05(c)(1) Rule 335-3-1-.04 Rule 335-3-16-.05(c)(1)(ii) §64.6(b) & (c)
3. Provided that a performance test has not been conducted on a generator engine in the last five (5) years, a performance test shall be conducted on each engine in accordance with the following requirements: (a) The pollutants tested for shall be NO_X, CO and VOC (b) Each test shall consist of three (3) runs of a least one hour in duration. (c) When appropriate, testing shall be conducted on each engine within six (6) months of commencing or re-commencing operations.	Rule 335-3-16-.05(c)(1)(i)

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
(d) Test emission factors shall be determined in units of pounds per million BTU (Lbs/MMBtu)	
(e) The pollutants tested for and the frequency of testing may be modified upon receiving Departmental approval.	
4. Except as specified in proviso 4(e) of this section, periodic testing shall be conducted on each generator engine in accordance with the requirements specified in provisos 4(a) through (d) of this section.	Rule 335-3-16-.05(c)(1)(i)
(a) The pollutants tested for shall be NO_X and CO	
(b) Each test shall consist of one run of one hour in duration	
(c) The frequency of periodic testing shall be once every twelve (12) months, unless otherwise required by the Department.	
(d) The pollutants tested for and the frequency of testing may be modified upon receiving Departmental approval.	
(e) A periodic test is not required on an engine if one of the following conditions apply during the period testing is to occur:	
(1) Provided that a performance test has been undertaken on an engine during the last twelve (12) months	
(2) Provided that the engine's accumulated operating time does not exceed 500 hours during the last twelve (12) months	
5. The fuel gas shall be tested for BTU content by capturing a representative sample of the fuel gas at a frequency of no less than once each six (6) months. The frequency of analysis may be modified upon receiving Departmental approval.	Rule 335-3-16-.05(c)(1)(i)
6. When possible and practicable, a continuous metering system shall be utilized that is capable of continuously monitoring and recording the fuel gas flow rate to each engine.	Rule 335-3-16-.05(c)(1) Rule 335-3-1-.04 Rule 335-3-16-.05(c)(1)(ii)

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
(a) The continuous measurement may be made with a single meter through which all of the fuel gas for identical make and model engines flow. Calibration, maintenance and operation of metering system shall be performed in accordance to manufacturer's specification.	
(b) Volumetric flow of fuel gas streams that are not continuously measured shall be accounted for by utilizing special estimating methods (i.e. engineer estimates, material balance, computer simulation, special testing etc.).	
Record Keeping and Reporting Requirements	
1. A record of the information specified in provisos 1(a) through (k) of this section of this subpart shall be maintained and made available for inspection for each generator engine.	Rule 335-3-16-.05(c)(2) 40 CFR §64.9
(a) The date, starting time and duration of each deviation from the requirements specified in this subpart along with the cause and corrective actions taken.	
(b) The date, time and results of each performance and periodic tests along with any other tests conducted on the engine that provides additional stack pollutant content data.	
(c) Date and type of engine maintenance that affects air emissions.	
(d) Date and type of catalytic converter maintenance and date of replacement.	
(e) Fuel gas BTU heat content [Heat Content (BTU/Scf)]	
(f) Fuel gas consumption for each engine [Volume (MScf/Month)]	
(g) Fuel gas heat input for each engine Heat Input (MMBTU/Month) = $\frac{[\text{Volume (MScf/Month)}] \times [\text{Heat Content (BTU/Scf)}]}{\{1000\}}$	

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
where, the fuel gas Btu heat content [BTU/Scf] shall equal to the most recent BTU content analysis. (h) Operating hours of each engine [Hours (Hours/Month)] (i) NO_X and CO emissions shall be determined as follows for each generator engine: (1) Engine Emissions (Lbs/Month) = [Heat Input (MMBtu/Month)] X [Test EF (Lbs/MMBTU)] where, the test emission factor (EF) (Lbs/MMBTU) shall equal to the most recent performance or periodic test results. (2) Engine Emissions (Lbs/Hour) = [Engine Emissions (Lbs/Month)] / [Hours (Hours/Month)] (3) Engine Emissions (Tons/Month) = [Engine Emissions (Lbs/Month)] / [{2,000 Lbs/Ton }] (j) Cumulative NO_X and CO emissions shall be determined as follows: (1) Cumulative Engine Emissions (Tons/Month) = ∑ Engine Emissions (Tons/Month) (2) Cumulative Engine Emissions (Tons/12 Months) = ∑ Previous 11 Months Cumulative Emissions (Tons/Month) + Recent Month Cumulative Emissions (Tons/Month) (k) Pressure drop across the catalyst bed determined during periodic testing and performance testing	
2. Periodic Monitoring Reports (PMR) and Excess Emissions Reports meeting the requirements specified in proviso 2(a) through (d) of this section of this subpart shall be submitted to the Department.	Rule 335-3-16-.05(c)(2) & Rule 335-3-16-.05(c)(3)(i)

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions. (1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit. (2) Except as provided for in proviso 2(d) of this section, the following information shall be included with each deviation: (i) Permit requirement (ii) Date (iii) Starting time (iv) Duration (v) Actual quantity of pollutant or parameter (vi) Cause (vii) Actions taken to return to normal operating conditions (viii) Total operating hours of the affected source during the reporting period (ix) Total hours of deviation events during the reporting period (x) Total hours of deviation events that occurred during startups, shut downs, and malfunctions during the reporting period (b) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.	

Provisos for Generator Engines

Federally Enforceable Provisos	Regulations
(c) Each report shall cover a calendar semi-annual period and shall be submitted using the following reporting schedule: Reporting Period — Submittal Date January 1-June 30 — July 31 July 1-December 31 — January 31	
(d) The report content specified in proviso 2(a) of this section may be modified upon receipt of Departmental approval.	
3. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i) §64.9

Summary Page for NGL Treating Unit

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(TO-1)	Amine treating Unit & 22.04 MMBtu/hr Thermal Oxidizer	SO_2	27.90 Lbs/Hr	Rule 335-3-14-.04 Anti-PSD Limit
		H_2S	Less than 2 LT/D of H_2S in acid gas	§60.640(b) 40 CFR 60, Subpart LLL
			Burn gas with 0.10 grains or more of H_2S/Scf of gas	Rule 335-3-5-.03(1)
			AND <20 ppbv offsite concentration	Rule 335-3-5-.03(2)
		Opacity	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
			AND	
			No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations
Applicability	
1. The Natural Gas Liquids [NGL] Treating Units thermal oxidizer shall be subject to the requirements of ADEM Admin. Code R. 335-3-4-.01, "*Visible Emissions*" and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01(1)
2. The NGL Treating Unit thermal oxidizer shall be subject to the requirements specified in ADEM Admin. Code R. 335-3-5-.03, "*Petroleum Production*" and the requirements specified in this subpart of this permit.	Rule 335-3-5-.03(1) & (2)
3. The NGL Treating Unit has enforceable limits in place in order to prevent it from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04, "*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration (PSD)].*"	Rule 335-14-.04
4. The NGL Treating Unit shall be subject to requirements specified in ADEM Admin. Code R. 335-3-16, "*Major Source Operating Permits*" and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03
5. The sweetening unit associated with the NGL Treating Unit shall be subject to the requirements of 40 CFR 60 Subpart LLL, "*Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing*" [NSPS LLL] and to the requirements specified in this subpart of this permit.	Rule 335-3-10-.02(64) §60.10(a), §60.641
6. The NGL Treating Unit thermal oxidizer shall be subject to the requirements specified in 40 CFR Part 64, "*Compliance Assurance Monitoring (CAM)*" as indicated in proviso 33 of the General Permit Provisos subpart and in this subpart of this permit.	§64.2(a)
Emission Standards	
1. Visible emissions from the thermal oxidizer shall meet the requirements specified in proviso 1(a) and (b) of this section of this subpart.	Rule 335-3-4-.01(1)
(a) Except for one 6-minute period during any 60-minute period, each unit shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall a unit discharge into the atmosphere particulate that results in an opacity greater than 40%,	Rule 335-3-4-.01(1)(b)

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations
as determined by a 6-minute average.	
2. Except as is provided for in proviso 2(b) of this section of this subpart, each process gas streams containing 0.10 of a grain of hydrogen sulfide (H_2S) per standard cubic feet (Scf) shall meet the requirement specified in proviso 2(a) of this section of this subpart:	Rule 335-3-5-.03(2)
(a) Each stream shall be burned to the extent that the ground level concentrations of H_2S shall be less than twenty (20) parts per billion beyond plant property limits, averaged over a thirty (30) minute period.	
(b) Provided vessels or equipment are being de-pressured and/or emptied and the reduced pressure will not allow flow of the process gas stream to the combustion device, the venting to the atmosphere of any gas stream shall be allowed, but the duration of the venting shall not exceed 15 continuous minutes.	
3. Sulfur dioxide (SO_2) emissions from the thermal oxidizer shall not exceed 27.9 pounds per (Lbs/Hour).	Rule 335-3-14-.04 Anti-PSD Limit
4. The facility shall have a design capacity of less than 2 long tons per day (LT/D) of H_2S in the acid gas (expressed as sulfur).	§60.640(b)
5. The thermal oxidizer firebox temperature shall be maintained at greater than or equal to the temperature established during the latest performance test that showed compliance.	§64.3(a)
Compliance and Performance Test Methods and Procedures	
1. Compliance with the opacity standards shall be determined as needed using Method 9 or Method 22 of 40 CFR 60, Appendix A.	Rule 335-3-4-.01(2)
2. Each process sour gas or acid gas stream that has to be vented to the atmosphere shall meet the following requirements:	Rule 335-3-5-.03(2) Rule 335-3-16-.05(c)(1)(i)
(a) Each stream shall be captured so that it can be burned or recycled back to the process.	
(b) Compliance shall be demonstrated by conducting a process flow design evaluation of the production facility in conjunction with a visual inspection of the facility.	
3. A performance test shall be conducted in accordance to the requirements specified in provisos 3(a) and (b) of this section	Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations
of this subpart to demonstrate compliance with the thermal oxidizer's SO_2 emission limit. (a) Each run shall be conducted in accordance to the following reference methods and procedures: (1) 40 CFR Part 60 Appendix A, Method 1 or 1A to determine the sampling site (2) 40 CFR Part 60 Appendix A, Method 2 or 2A or 2B or 2C or 2D or 2E to determine the volumetric flow rate of the effluent gas (3) 40 CFR Part 60 Appendix A, Method 3 or 3A or 3B or 3C to determine the gas analysis (4) 40 CFR Part 60 Appendix A, Method 4 to determine the moisture in the stack gas (5) 40 CFR Part 60 Appendix A, Method 6 or 6A or 6B or 6C to determine SO_2 emissions (b) The methods and procedures utilized to demonstrate compliance with the emissions standards may be modified upon receiving Departmental approval.	
4. Periodic determinations of the sulfur content of NGL entering and leaving the amine unit's contact tower shall be made utilizing laboratory analysis or chromatographic analysis procedures acceptable to the Department or other EPA approved methods.	Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05
Emission Monitoring	
1. CAM and opacity monitoring for the NGL Treating Unit shall be conducted as specified in *Appendix C* of this permit.	Rule 335-3-16-.05(c)(1) §64.6(b) & (c)
2. A performance test shall be conducted on the thermal oxidizer in accordance to the following requirements: (a) Except as specified in proviso 2(c) of the section of this subpart, performance testing shall be conducted at least once every twelve (12) months. (b) Testing shall consist of three runs of at least 1-hour in duration each and each run shall test for SO_2 emissions. (c) During each run, the thermal oxidizer's firebox temperature shall be recorded and established. The	Rule 335-3-16-.05(c)(1)(i)

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations
minimum firebox temperature shall be equivalent to the average temperatures that were observed during the performance test.	
(d) A performance test is not required if the NGL Treating Unit's accumulated hours of operation does not exceeded five hundred (500) hours over a twelve (12) consecutive month period following the last performance test.	
3. Periodic determinations of the sulfur content of NGL entering and leaving the amine unit's contact tower shall be undertaken in accordance to the requirements specified in proviso 3(a) and (b) of this section of this subpart.	Rule 335-3-16-.05(c)(1)(i)
(a) A representative sample of the NGL entering and leaving the amine unit contacting tower shall be obtained and analyzed for its sulfur content. [Sul wt frac NGL in] [Sul wt frac NGL out]	
(b) The maximum interval in which to conduct sampling and analyses shall not exceed six (6) months between samples.	
Recordkeeping and Reporting Requirements	
1. To certify that the facility is exempt from the control requirements under NSPS LLL, an analysis demonstrating that the facility's design capacity is less than 2 LT/D of H_2S expressed as sulfur shall be maintained for the life of the facility.	§60.647(c)
2. A record of the information specified in provisos 2(a) through (n) of this section of this subpart shall be maintained and made available for inspection.	Rule 335-3-16-.05(c)(2)
(a) The date, starting time and duration of each deviation from the requirements specified in this subpart along with the cause and corrective actions taken.	
(b) The date, time and results of each performance tests and periodic tests along with any other tests conducted on the thermal oxidizer that provides additional stack pollutant content data.	
(c) The date and time of each shut down and startup of the H_2S absorption unit, the amine treating unit, and	

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations

the thermal oxidizer.

(d) Date and type of maintenance that affects air emissions.

(e) Results of each visual emissions observation.

(f) Daily firebox temperature

(g) NGL extraction unit operating hours

[NGL Treating Unit Operating Hours (Hours/Month)]

(h) Thermal oxidizer operating hours

[TO Operating Hours (Hours/Month)]

(i) NGL Production Rate OR Sales Rate

[NGL Production (BBL/Month)]

(j) Total Sulfur mass fractions:

(1) For the NGL inlet stream to the NGL treating unit:

[x_{In} in (Lbs Total S/Lbs NGL)]

(2) For the NGL outlet stream from the NGL treating unit:

[x_{Out} in (Lbs Total S/Lbs NGL)]

(k) NGL density

[Density (Lbs/BBL)]

(l) Monthly SO_2 emissions (Lbs/Month) =

NGL Production (BBL/Month) X Density (Lbs/BBL) X [[x_{In} – x_{Out}] (Lbs Total S/Lbs NGL)] X 2 [Lbs SO_2/Lbs Total S]

(m) Hourly SO_2 emissions [Lbs/Hour] =

$$\frac{\text{Monthly } SO_2 \text{ emissions (Lbs/Month)}}{\text{NGL Treating Unit (Hours/Month)}}$$

(1) If the Thermal Oxidizer operating hours equal zero, then the hourly SO_2 emissions equal zero.

(n) The information that shall be utilized for the above calculations shall be that of the most recent performance test and/or periodic content determination results.

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations
3. Periodic Monitoring Reports (PMR) and Excess Emissions Reports meeting the requirements specified in proviso 3(a) through (d) of this section of this subpart shall be submitted to the Department.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i)
(a) Each PMR and Excess Emissions Report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	
(1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit.	
(2) Except as provided for in proviso 3(d) of this section, the following information shall be included with each deviation:	
(i) Emission source description	
(ii) Permit requirement	
(iii) Date	
(iv) Starting time	
(v) Duration	
(vi) Actual quantity of pollutant or parameter	
(vii) Cause	
(viii) Actions taken to return to normal operating conditions	
(ix) Total operating hours of the affected source during the reporting period	
(x) Total hours of deviation events during the reporting period	
(xi) Total hours of deviation events that occurred during startups, shut downs, and malfunctions during the reporting period	

Provisos for NGL Treating Unit

Federally Enforceable Provisos	Regulations
(b) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.	
(c) Each report shall cover a calendar semi-annual period and shall be submitted using the following reporting schedule: Reporting Period — Submittal Date January 1-June 30 — July 31 July 1-December 31 — January 31	
(d) The report content and format in proviso 3(b) of this section may be modified upon receipt of Departmental approval.	
4. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(ii)

Summary Page for Fugitive VOC Equipment Leaks

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
Onshore Natural Gas Processing Facilities				
	AFFECTED SOURCES: Compressor, except reciprocating) in VOC service or in wet gas service The group of all equipment (each pump, pressure relief device, open-ended valve or line, flange or other connector in VOC or in wet gas service), except compressors, within a process unit Each glycol dehydration unit Liquefied natural gas unit **PROCESS UNITS:** Inlet gather & separation Gas dehydration unit NGL extraction unit NGL treating unit Closed vent system & flare	Fugitive VOC	LDAR Work Practices	§60.630(a), (b) 40 CFR 60 Subpart KKK

Provisos for Fugitive VOC Equipment Leaks

Federally Enforceable Provisos	Regulations
Applicability	
1. All affected facilities shall be subject to the requirements specified in ADEM Admin. Code R. 335-3-16, "*Major Source Operating Permits*" and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03
2. Except as specified in 40 CFR §60.630(d), affected facilities at onshore natural gas processing plants are subject to the requirements found in 40 CFR 60, Subpart KKK "*Standards of Performance for Equipment Leaks of Volatile Organic Compounds (VOCs) from Onshore Natural Gas Processing Plants*" [NSPS KKK]. Affected facilities under this subpart are as follows:	§60.630(a)(1), (b) §60.630(d) Rule 335-3-10-.02(63)
(a) Each compressor in VOC service or in wet gas service, except reciprocating compressors in wet gas service	§60.630(a)(2) §60.633(f)
(b) The group of all equipment within a process unit in VOC service or in wet gas service including: (1) Each pump (2) Each pressure relief device (3) Each open-ended valve or line (4) Each valve (5) Each flange or other connector (6) Any device or system required by this subpart	§60.630(a)(3) §60.631
(c) A compressor station, dehydration unit, sweetening unit, underground storage tanks, field gas gathering system, or liquefied natural gas units located at the natural gas processing plant.	§60.630(e)
3. The applicable requirements under 40 CFR 60 Subpart VV" *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*" [NSPS VV] shall be met to demonstrate compliance with NSPS KKK.	§60.632

Provisos for Fugitive VOC Equipment Leaks

Federally Enforceable Provisos	Regulations
Emissions Standards	
1. The emission standards as specified in either 1(a) or 1(b) of this section of this permit shall be met to demonstrate compliance with this NSPS KKK.	§60.632(a) §60.482-1(a) §60.480(e)
(a) Except as specified in §60.633 of NSPS KKK, each affected facility shall comply with the emission standards specified in the following provisos:	
(1) Pumps in light liquid service shall comply with §60.482-2 of NSPS VV except as specified in §60.633(d) and (e) of NSPS KKK.	§60.482-1(a) §60.482-2 §60.633(d) & (e)
(2) Compressors shall comply with §60.482-3 of NSPS VV, except as specified in §60.633(f) of NSPS KKK.	§60.482-1(a) §60.482-3 §60.633(f)
(3) Pressure relief devices in gas/vapor service shall comply with §60.482-4 of NSPS VV, except as specified in §60.633 (b), (d), and (e) of NSPS KKK.	§60.482-1(a) §60.482-4 §60.633(b), (d), & (e)
(4) Sampling connection systems under NSPS KKK are exempt from the requirements of §60.482-5 of NSPS VV.	§60.633(c)
(5) Open-ended valves or lines shall comply with §60.482-6 of NSPS VV.	§60.482-1(a) §60.482-6
(6) Valves in gas/vapor service and in light liquid service shall comply with 60.482-7 of NSPS VV, except as specified in §60.633(d) and (e) of NSPS KKK.	§60.482-1(a) §60.482-7 §60.633(d) & (e)
(7) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors shall comply with §60.482-8 of NSPS VV.	§60.482-1(a) §60.482-8
(8) Delay of repair shall comply with §60.482-9 of NSPS VV.	§60.482-1(a) §60.482-9
(9) Closed vent systems and control devices shall comply with §60.482-10 of NSPS VV.	§60.482-1(a) §60.482-10
(i) Provided a flare is utilized to meet any of the above requirements, the flare shall comply with the	§60.633(g)

Provisos for Fugitive VOC Equipment Leaks

Federally Enforceable Provisos	Regulations
requirements specified in §60.18 of 40 CFR Part 60, Subpart A.	
(10) Equipment that is in vacuum service is excluded from the requirements of §60.482-2 through §60.482-10 of NSPS VV if it meets the requirements of §60.486(e)(5) of NSPS VV.	§60.632(a) §60.482-1(d) §60.486(e)(5)
(b) As an alternative means of compliance, the provisions of 40 CFR 65, Subpart F may be complied with to satisfy the requirement of §60.482 through §60.487 of NSPS VV for an affected facility.	§60.480(e) §60.482-1(a)
2. An owner or operator may elect to comply with the alternative standards for valves specified in §60.483-1 or 60.483-2 of NSPS VV.	§60.632(b)
3. An owner or operator may apply for permission to use an alternative means of emission limitations as specified in §60.634 of NSPS KKK to satisfy the requirements of §60.482 through §60.487 of NSPS VV for an affected facility.	§60.632(c) §60.634
Compliance and Performance Test Methods and Procedures	
1. Except as specified in §60.633(f), compliance with §60.482-1 through §60.482-10 of NSPS VV shall be determined by the review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485 of NSPS VV.	§60.632(d) §60.482-1(b) §60.485
Emission Monitoring	
1. The inspection and monitoring requirements specified in §60.482-1 through §60.482-10 of 40 CFR Part 60, Subpart VV and either §60.483-1 or §60.483-2 of NSPS VV shall be complied with.	§60.632(a) & (b)
Record keeping and Reporting Requirements	
1. Recordkeeping and reporting requirements specified in §60.7 and §60.19 of 40 CFR Part 60, Subpart A and §60.486 and §60.487 of NSPS VV shall be maintained, except as provided for in §60.633, §60.635 and §60.636 of NSPS KKK.	§60.7 §60.19 §60.632(e) §60.486 §60.487

Provisos for Fugitive VOC Equipment Leaks

Federally Enforceable Provisos	Regulations
2. A Leak Detection and Repair (LDAR) summary report shall be submitted to the Department: (a) The report shall include the requirements specified in §60.636(c) and a summary of the recordkeeping requirements found in §60.486 as specified in §60.487(c). (b) The report shall cover a calendar semi-annual period and shall be submitted to the Department on the following reporting schedule: Reporting Period — Submittal Date January 1-June 30 — July 31 July 1-December 31 — January 31	§60.636(c) §60.487(c)

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Summary Page for Equipment Leaks of HAPs

Permitted Operating Schedule: **24** Hours/Day x **365** Days/Year = **8,760** Hours/Year

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
Oil and Natural Gas Production Facilities				
AFFECTED SOURCES:	Located at a natural gas processing plant and operating in VHAP service for 300 hours per calendar year or more Ancillary equipment: (pumps, pressure relief devices, open-ended valves, or lines, valves, flanges, or other connectors) Each Compressor, except reciprocating compressors in wet gas service	HAPs	LDAR work practices	§63.760(b)(1)(iii) §63.764(a)(3) 40 CFR 63 Subpart HH
PROCESS UNITS:	Condensate stabilization unit			

Provisos for Equipment Leaks of HAPs

Federally Enforceable Provisos	Regulations
Applicability	
1. All affected facilities shall be subject to the requirements specified in ADEM Admin. Code R. 335-3-16, "*Major Source Operating Permits*" and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03 §63.760(h)
2. Affected facilities located at a major source of Hazardous Air Pollutants (HAPs) are subject to the requirements found in 40 CFR 63, Subpart HH "*National Emission Standards for HAPs from Oil and Natural Gas Production Facilities*" [MACT HH]. Each affected facility specified below that is located at a natural gas processing plant and which operates in volatile HAP (VHAP) service for 300 hours per calendar year or more is subject to this subpart.	§63.760(a)(1),(2),(3) §63.760(b)(1)(iii) & (iv) §63.764(c)(3) §63.769(a)(1)&(2) Rule 335-3-11-.06(33)
(a) Each compressor	§63.760(b)(1)(iv)
(b) Group of all ancillary equipment (as defined in §63.761) including each of the following:	§63.760(b)(1)(iii) §63.761
(1) Each pump	
(2) Each pressure relief device	
(3) Each open-ended valve or line	
(4) Each valve	
(5) Each flange	
(6) Other connectors	
(c) The applicable requirements under 40 CFR 61 Subpart V" *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*" shall be met to demonstrate compliance with MACT HH as specified.	§63.769(c)
(d) 40 CFR 63, Subpart A, "*General Provisos*" shall be complied with as specified in Table 2 of MACT HH.	§63.764(a)

Provisos for Equipment Leaks of HAPs

Federally Enforceable Provisos	Regulations
Emissions Standards	
1. The following standards shall be met to demonstrate compliance with MACT HH:	§63.769(c)
(a) General standards found in §61.242-1	§61.242-1
(b) Pumps shall comply with §61.242-2, except that pumps in VHAP service located at a non-fractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas are exempt from the routine monitoring specified §61.242-2(a)(1)	§61.242-2 §63.769(c)(5)
(c) Compressors shall comply with §61.242-3, except that reciprocating compressors in wet gas service are exempt from the compressor control requirements	§61.242-3 §63.769(c)(7)
(d) Pressure relief devices (PRD) in gas/vapor service shall comply with §61.242-4, except as specified in 63.769(c) and as follows:	§61.242-4 §63.769(c)(1),(2),(3), and (5)
(1) Each PRD in gas/vapor service shall be monitored quarterly and within 5 days after each pressure release to detect leaks unless the conditions specified in §63.769(c)(1)(i) or (ii) occur	§63.769(c)(1)
(2) An instrument reading of 10,000 parts per million (ppm) or greater measured indicates that a leak is detected	§63.769(c)(2)
(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, unless a delay in repair of equipment is granted under §61.242-10	§63.769(c)(3)
(4) Each PRD in gas/vapor service located at a non-fractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas is exempt from the routine monitoring specified in provisos 1(d)(1) through (3) of this section of this permit.	§63.769(c)(5)

Provisos for Equipment Leaks of HAPs

Federally Enforceable Provisos	Regulations
(e) Open-ended valves or lines shall comply with §61.242-6	§61.242-6
(f) Valves shall comply with §61.242-7, except as follows:	§61.242-7
(1) For valves subject to §61.242-7(b) or §61.243-1, a leak is detected if an instrument reading of 500 ppm or greater is measured	§63.769(c)
(2) A leak shall be repaired in accordance with §61.242-7(d) for sources constructed on or before August 23, 2011.	§63.769(c)
(3) Valves in gas/vapor and light liquid service located at a non-fractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas is exempt from the routine monitoring specified in §61.242-7(a).	§63.769(c)(5)
(g) Pressure relief devices in liquid service and connectors shall comply with §61.242-8	§61.242-8
(h) Delay of repair shall comply with §61.242-10	§61.242-10
(i) Closed-vent systems and control devices shall comply with §61.242-11	§61.242-11 §63.769(c)(8)
(1) Flares used to comply with this subpart shall comply with the requirements of §63.11(b)	§63.771(d)(1)(iii) §61.242-11(d)
(2) Vapor recovery systems used to comply with the subpart shall be designed and operated as specified in 61.242-11(b)	§63.771(d)(1)(ii) §61.242-11(b)
2. An alternative means of emission limitations as provided in §61.244 may be requested for affected sources subject to the requirements of provisos 1(b), (c), (e), (f), (g) or (i) of this section of this permit.	§61.242-1(c)(1)
3. If the facility is required to repair a leak within a specified time after the leak has been detected, it is a violation of this standard to fail to take action to repair the leak(s) within the specified time	§63.764(i)

Provisos for Equipment Leaks of HAPs

Federally Enforceable Provisos	Regulations
(a) If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard	
(b) If the repairs are unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of this subpart	
4. At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions	§63.764(j)
Emission Monitoring	
1. The applicable monitoring requirements specified in §61.242-1 through §61.242-11, §61.243, and §61.244 shall be complied with as specified in §61.245(b)(1)-(5)	§61.245(b)
2. If a flare is used as a control device to comply with MACT HH the requirements specified in §61.245(e) shall be complied with.	§61.245(e)
3. If a vapor recovery system is as a control device to comply with MACT HH the requirements specified in §61.245(e) shall be complied with.	
Compliance and Performance Test Methods and Procedures	
1. Compliance with MACT HH shall be determined by review of records and inspection using the methods and procedures specified in §61.245	§61.242-1(b)
2. Monitoring as required by §61.242, §61.243, and §61.244 shall be conducted using Method 21 of Appendix A of 40 CFR part 60.	§61.245(b)(1)
Record keeping and Reporting Requirements	
1. The applicable recordkeeping requirements found in §61.246 shall be met to demonstrate compliance with this subpart.	§61.246
(a) Each leak detected shall be recorded in a log and kept for 2 years in a readily accessible	§61.246(c)

Provisos for Equipment Leaks of HAPs

Federally Enforceable Provisos			Regulations
		location as specified in §61.246(c).	
	(b)	The applicable records specified in §63.774(b)(1) through (11) shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.	§63.774(b) §63.774(b)(1)
	(c)	If a flare is used to comply with MACT HH, the records specified in §63.774 (e) shall be maintained.	§63.774(e)
	(d)	The information pertaining to the design requirements for closed-vent systems and control devices shall be recorded and kept in a readily accessible location as specified in §61.246(d).	§61.246(d)
2.		The reporting requirements found in §61.247 and §63.775 shall be met to demonstrate compliance with this subpart.	§61.247 §63.775(b)
3.		A Leak Detection and Repair (LDAR) summary report shall be submitted to the Department:	§61.247(b) §63.775(e)(1) & (2) §63.775(g)(2)
	(e)	The report shall include the information specified in §61.247(b) and §63.775(e)(1) and (2) and a summary of the recordkeeping requirements specified in provisos 1 of this section of this permit.	
	(f)	The report shall cover a calendar semi-annual period and shall be submitted to the Department on the following reporting schedule:	

Reporting Period	Submittal Date
January 1-June 30	July 31
July 1-December 31	January 31

Summary Page for Facility Flares

Permitted Operating Schedule [FL-1]: 24 Hours/Day x 365 Days/Year = 8,760 Hours/Year
Permitted Operating Schedule [AGFL-1]: 60 Hours/Quarter

Emission limitations:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(FL-1)	Continuous Process Flare	VOC	Less than or equal to 11.82 Lbs/hr	335-3-14-.04 [Anti-PSD Limit]
(AGFL-1)	Emergency Acid Gas Flare	VOC	Less than or equal to 2.70 Lbs/hr	335-3-14-.04 [Anti-PSD Limit]
			AND	
			0.242 Tons/12 consecutive months	335-3-14-.04 [Anti-PSD Limit]
		Sulfur	Less than or equal to 60 hours of high sulfur gas flared during a calendar quarter	335-3-14-.04 [Anti-PSD Limit]
Each Facility Flare		H_2S	Burn gas with 0.10 grains or more of H_2S/Scf of gas	Rule 335-3-5-.03(1)
			AND	
			<20 ppbv offsite concentration	Rule 335-3-5-.03(2)
		Opacity	No visible emissions, except for 5 minutes in a 2 consecutive hour period	§60.18(c)(1),§60.633(g) [NSPS KKK] §63.11(b)(4), §63.769(c)(8) [NESHAP HH]

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
Applicability	
1. The facility flares are subject to the requirements of ADEM Admin. Code R. 335-3-5-.03, "*Petroleum Production*" for control of sulfur dioxide (SO_2) emissions and the applicable requirements specified in this subpart of this permit.	Rule 335-3-5-.03
2. Each facility flare has enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04, "*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration (PSD)]*".	Rule 335-14-.04
3. Each facility flare is subject to the requirements specified in ADEM Admin. Code R. 335-3-16, "*Major Source Operating Permits*" and the requirements specified in this subpart of this permit.	Rule 335-3-16-.03
4. The facility flares shall be subject to the following requirements:	
(a) A flare used to comply with 40 CFR 60 Subpart KKK, shall meet the requirements specified in §60.18 of 40 CFR Part 60 Subpart A, "*General Provisions*" and the requirements specified in this subpart of this permit.	§60.633(g) §60.18 §60.482-10(d)
(b) A flare used to comply with 40 CFR 63 Subpart HH, shall meet the requirements specified in §63.11(b) of 40 CFR Part 63, Subpart A "*General Provisions*" and the requirements specified in this subpart of this permit.	§63.769(c)(8) §63.11(b) §63.771(d)1(iii) §61.242-11(d)
5. Each facility flare shall be subject to the requirements specified in 40 CFR Part 64, "*Compliance Assurance Monitoring"* as indicated in proviso 33 of the General Permit Provisos subpart and to this subpart of this permit.	§64.2(a)
Emission Standards	
1. Except as is provided for in proviso 1(b) of this section of this subpart, each process gas streams containing 0.10 of a grain of hydrogen sulfide per standard cubic feet (Scf) shall meet the requirement specified in proviso 1(a) of this section of this subpart:	Rule 335-3-5-.03(1) & (2)
(a) Each stream shall be burned to the extent that the ground level concentrations of hydrogen sulfide (H_2S) shall be less than twenty (20) parts per billion beyond plant property limits, averaged over a thirty (30)	

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
minute period.	
(b) Provided vessels or equipment are being de-pressured and/or emptied and the reduced pressure will not allow flow of the process gas stream to the combustion device, the venting to the atmosphere of any gas stream shall be allowed, but the duration of the venting shall not exceed 15 continuous minutes.	
2. Volatile organic compounds (VOC) emissions from the Continuous Process Flare (No. FL-1) shall not exceed 11.82 pounds per hour (Lbs/Hour).	Rule 335-3-14-.04
3. The Emergency Acid Gas Flare (AGFL-1) shall meet the following requirements:	Rule 335-3-14-.04
(a) VOC emissions shall not exceed:	
(1) 2.70 Lbs/Hr	
AND	
(2) 0.242 tons per 12 consecutive months (Tons/12-Months)	
(b) Provided that a high sulfur content gas stream(s) produced in the NGL treating Unit is diverted to the Acid Gas Flare (AGFL-1), flaring shall not occur for more than an accumulated sixty (60) hours during a calendar quarter of a year.	
4. Each facility flare shall meet the requirements specified in provisos 4(a) through (f) of this section of this subpart.	
(a) Shall be designed for and operated with no visible emissions, except for a 5-minute period during any consecutive 2-hour period	§60.18 (c)(1) §63.11(b)(4)
(b) Shall be operated with a flame present at all times	§60.18 (c)(2) §63.11(b)(5)
(c) Shall be steam-assisted, air-assisted, or non-assisted	§60.18(c)(6) §63.11(b)(2)
(d) Shall adhere to the requirements specified in either proviso 4(d)(1) and 4(d)(2) of this section of this subpart or the requirements specified in proviso 4(d)(3) of this section of this subpart.	§60.18(c)(3) §63.11(b)(6)
(1) Adhere to the heat content specifications found in §60.18 (c)(3)(ii) and §63.11(b)(6)(ii)	§60.18 (c)(3)(ii) §63.11(b)(6)(ii)

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
(2) Adhere to the maximum tip velocity specifications found in §60.18 (c)(4) or (c)(5) and §63.11(b)(7) or (b)(8)	§60.18 (c)(4) or (c)(5) §63.11(b)(7) or (b)(8)
(3) Adhere to the requirements specified in §60.18 (c)(3)(i) and §63.11(b)(6)(i)	§60.18 (c)(3)(i) §63.11(b)(6)(i)
(e) Shall be monitored to ensure that they are operated and maintained in conformance with their designs	§60.18(d) §63.11(b)(1)
(f) Shall be operated at all times when emissions may be vented to them	§60.18 (e) §63.11(b)(3)
Compliance and Performance Test Methods and Procedures	
1. In order to demonstrate compliance with §60.18 and §63.11 for the flares, the following methods and procedures shall be utilized:	
(a) Method 22 of 40 CFR Subpart 60 Appendix A shall be used to determine compliance with the visible emission provisions	§60.18 (f)(1) §63.11(b)(4)
(b) The net heating value of the gas combusted in the flare shall be calculated using the equation in §60.18 (f)(3) and §63.11(b)(6)(ii)	§60.18 (f)(3) §63.11(b)(6)(ii)
(c) The actual exit velocity of a flare shall be determined as specified in §60.18 (f)(4) and §63.11(b)(7)(i).	§60.18 (f)(4) §63.11(b)(7)(i)
(d) The maximum permitted velocity, V_{max}, for the flare shall be determined as follows:	§60.18 (f)(5)
(1) For steam-assisted and non-assisted flares the equation in §60.18 (f)(5) and §63.11(b)(7)(iii) shall be utilized	§60.18 (f)(5) §63.11(b)(7)(iii)
(2) For air-assisted flares the equation in §60.18 (f)(6) and §63.11(b)(8) shall be utilized	§60.18 (f)(6) §63.11(b)(8)
2. Each process gas stream that can be sent to a facility flare shall be tested in accordance to the requirements specified in proviso 2(a) through (c) of this section of this subpart.	Rule 335-3-16-.05(c)(1)(i)
(a) The sample collected shall be analyzed while utilizing the chromatographic analysis procedures in 40 CFR Part 60 Appendix A, Method 18, Method 25A, or equivalent methods and procedures to determine the VOC content, molecular weight, and heat content of	

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
the gas stream. [Stream VOC (VOC Mole %)] [Stream MW (Mole Wt)] [Stream Heat Content (BTU/Scf)]	
(b) The sample shall be analyzed for its hydrogen sulfide (H_2S) content by utilizing the Tutwiler procedures found in 40 CFR §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture. [Stream H_2S (Mole %)]	
(c) The methods and procedures that are used may be modified upon receiving Departmental approval.	
3. Each process gas stream that has to be vented to atmosphere shall meet the following requirements:	Rule 335-3-5-.03(2)
(a) Each stream shall be captured so that it can be burned, or recycled to the process.	
(b) Compliance shall be demonstrated by conducting a process flow design evaluation of the production facility in conjunction with a visual inspection of the facility.	
Emission Monitoring	
1. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.	§60.18 (f)(2) §63.11(b)(5) §60.485(g)(2) §63.773(d)(3)(i)(C)
2. Periodic monitoring, opacity monitoring and Compliance Assurance Monitoring (CAM) shall be met as specified in Appendix D, "of this permit.	Rule 335-3-16-.05(c)(1) §64.6(b) & (c) §60.18(c)
3. Each process gas stream that can be sent to either flare shall be tested in accordance to the requirements specified in proviso 3(a) through (c) of this section of this subpart.	Rule 335-3-16-.05(c)(1)(i)
(a) Sampling for the VOC content, BTU content, H_2S content, and molecular weight shall consist of capturing a representative sample of the exhaust stack gases at a frequency of no less than once each twelve (12) months.	

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
(b) Provided multiple process streams can be sent to the flare and it is possible to capture a common stream whose contents would be representative of all the streams, that common stream may be used instead of the individual process streams.	
(c) The frequency of this testing may be modified upon receipt of Department approval.	
4. Provided that high sulfur content gas stream(s) are flared in the Acid Gas Flare (AGFL-1) for greater than 60 hours per calendar quarter, a root cause analysis and appropriate corrective actions shall be undertaken to minimize the frequency of flaring events along with the volumes of high sulfur content gas burned during the flaring events.	Rule 335-3-14-.04
Record Keeping and Reporting Requirements	
1. To demonstrate compliance with the requirements of §60.18 and §63.11 the following records shall be maintained:	§63.774(b)(4)(ii)(A)
(a) Each period when the flare pilot does not have a flame	§60.486(d)(4), §63.774(b)(4)(i), §63.774(e)(3)
(b) Flare design	§63.774(e)(1) §61.246(d)(1)
(c) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations	§63.774(e)(2)
(d) Date of startup and shutdown of closed vent system and control device	§60.486(d)(5) §61.247(b)(3)
2. A record of the information specified in provisos 2(a) through (f) of this section of this subpart shall be maintained and made available for inspection.	Rule 335-3-16-.05(c)(2)
(a) The date, starting time and duration of each deviation from the requirements specified in this subpart along with the cause and corrective actions taken.	
(b) Results of each gas analysis, including:	
(1) Stream(s) for which the analysis was conducted	
(2) Stream Btu Heat content [Heat Content (BTU/Scf)]	

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations

(3) Sulfur content

[Stream H_2S Content (Mole %)]

(4) Molecular Weight

[Stream Mol. Wt (Lbs/Lb-Mole)]

(5) VOC Content

[Stream VOC (Mole %)]

(c) Volume of each stream flared

[Stream Volume Burned (MScf/Month)]

(d) Number of hours each flare was operated

[Flaring Hours (Hours/Month)]

(e) The following calculations shall be carried out for the amine flash tank:

(1) VOC Emissions (Lbs/Month) =

[Stream Volume Burned (MScf/Month)] X [{1000 Scf/MScf}] X
[{1 Mole/380 SCF}] X [(VOC Mole %)/{100}] X
[Lbs. of VOC/Lb-Mole VOC] X [1.0 – 0.98]

(2) VOC Emissions (Lbs/Hour) =

$$\frac{\text{VOC Emissions (Lbs/Month)}}{\text{Flaring Hours (Hours/Month)}}$$

(3) VOC Emissions (Tons/Month) =

VOC Emissions (Lbs/Month) X {1 Ton/2,000 Lbs}

(4) VOC Emissions (Tons/12 Months) =

Current Month VOC Emissions (Tons/Month) + $\sum$ Previous 11 Months VOC Emissions (Tons/Month)

(f) Additionally, for each Acid Gas Flaring incident:

(1) Assist gas volume that was flared =

[Assist Gas Volume Burned (MScf/Day)]

(2) Stream H_2S (Lbs/Day) =

[Stream Volume Burned (MScf/Day)] X {1000 Scf/MScf} X
[{1 Mole/380 SCF } X [Stream H_2S Content (Mole %)/{100}] X
[34 Lbs. H_2S/Lb-Mole H_2S]

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
(3) Flare H_2S Feed Rate (Lbs/Day) = $\sum$ of Stream H_2S (Lbs/Day)	
(4) Flare SO_2 (Lbs/Day) = [Flare H_2S Feed Rate (Lbs/Day)] X [64 Lbs of SO_2/ Lb-Mole] X [0.98] / [{34 Lbs H_2S/Lb-Mole}]	
(5) Accumulated hours when high sulfur content gas stream(s) produced in the NGL treating Unit is diverted to the Acid Gas Flare (AGFL-1) [High Sulfur Flaring Hours (Hours/Calendar Quarter)]	
(6) Acid gas to Assist gas volume ratio for AGFL-1	
3. Periodic and Excess Emissions Monitoring Reports meeting the requirements specified in proviso 3(a) through (d) of this section of this subpart shall be submitted to the Department.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i) §63.775(e)(1) §60.487(c)(3)
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	
(1) A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit.	
(2) For each deviation event, the following information shall be submitted.	
(i) Emission source description	
(ii) Permit requirement	
(iii) Date	
(iv) Starting time of pollutant or parameter	
(v) Duration	
(vi) Actual quantity of pollutant or parameter	
(vii) Cause	

Provisos for Facility Flares

Federally Enforceable Provisos	Regulations
(viii) Actions taken to return to normal operating conditions	
(ix) Total operating hours of the affected source during the reporting period	
(x) Total hours of deviation events during the reporting period	
(xi) Total hours of deviation events that occurred during startups, shut downs, and malfunctions during the reporting period	
(b) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.	
(c) Except as provided for in proviso 3(e) of this section, each Excess Emissions report shall meet the requirements specified in either §60.7(c) of 40 CFR Part 60, Subpart A.	
(d) Each report shall cover a calendar semi-annual period and shall be submitted using the following reporting schedule: Reporting Period — Submittal Date January 1-June 30 — July 31 July 1-December 31 — January 31	§60.487(a) §61.247(b)
(e) The report content and format in proviso 3(a) through (d) of this section may be modified upon receipt of Departmental approval.	
4. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

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Appendix A: Monitoring for Generator Engines

Each Generator Engine

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Monitoring approach:	*Periodic monitoring*
I. Indicator	**Calculated NO_X, CO, & VOC emissions**
A. Measurement approach	Fuel gas volume to each unit shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation. BTU content of fuel gas stream shall be determined semi-annually, or at a frequency determined by the Department. NO_X, CO, & VOC emission factors shall be determined during performance testing NOx and CO emission factors shall be determined during periodic tests. Each Generator Engine shall be equipped with a selective catalytic oxidizer
II. Indicator range	**Pollutant Emissions shall be maintained at:** **CO ≤ 8.50 lb/hr** **NO_X ≤ 8.50 lb/hr** **VOC ≤ 4.29 lb/hr** A deviation is defined as anytime the calculated emission rate exceeds the respective allowed emission rates. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.
A QIP threshold	Not applicable
III. Performance criteria	
A. Data representiveness	Fuel gas volume monitor shall be located immediately upstream of the engine. Fuel gas BTU content shall be determined from samples that are representative of the fuel gas being consumed. Performance tests shall be undertaken while engine is being operated at normal loads.
B. Verification of operational status	Not applicable
C. QA/QC practices & criteria	The fuel gas volume monitor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent. If the fuel gas monitor fails its calibration tests, the fuel gas monitor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.

Each Generator Engine

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Monitoring approach:	*Periodic monitoring*
I. Indicator	**Calculated NO_x, CO, & VOC emissions**
D. Monitoring frequency	Fuel gas volume measured continuously.
	Fuel gas BTU content shall be determined semi-annually, or at a frequency set by the Department.
	Performance tests shall be undertaken at least once every five years.
	Periodic tests shall be conducted semi-annually OR annually, as provided for in the permit.
Data collection procedure	Calculate: Monthly, or as set by the Department
	Pollutant emissions while utilizing the fuel volume, BTU content, emission factors and operating hours
	Fuel gas volume consumed
	Record: Monthly, or as set by the Department
	Fuel gas volume consumed
	Hours of operation.
	Pollutant emissions
	Record: Each occurrence
	Fuel gas BTU content determination
	Time, date and results of each inspection and corrective actions taken
Averaging period	Monthly, or as set by the Department

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Appendix B: Monitoring for Each Selective Catalytic Converter

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Each Selective Catalytic Converter

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Monitoring approach:	*Periodic Monitoring*	*Compliance Assurance Monitoring [CAM]*
I. Indicator	**Pressure drop across catalyst bed**	**Inlet temperature of catalyst bed**
A. Measurement approach	Pressure drop across catalyst bed shall be monitored with a system capable of continuously measuring the difference between the inlet and outlet catalyst bed pressures in inches of water. The system shall be installed and continuously operated.	Inlet temperature of the catalyst bed shall be monitored with a system capable of continuously measuring the inlet temperature of the catalyst bed. The system shall be installed and continuously operated.
II. Indicator range	**Pressure drop @ no less than 75% load shall not change by more than two inches of water from the pressure drop established during the latest performance test or periodic test that showed compliance had been achieved.** A deviation is defined as anytime the pressure drop changed by more than two inches of water from the pressure drop that was established during the latest performance test that showed compliance had been achieved. A deviation triggers an immediate inspection and corrective actions that meet the requirements of 40 CFR Part 64.7(d) and reporting within 48 hours or two work days.	**Inlet temperature shall be maintained at a temperature that is => 500 °F and that is <= 1,000 °F.** A deviation is defined as anytime the inlet temperature falls below 500 °F or exceeds 1,000 °F. A deviation triggers an immediate inspection and corrective actions that meet the requirements of 40 CFR Part 64.7(d) and reporting within 48 hours or two work days.
A QIP threshold	If the accumulated hours of deviation events occurring exceeds 5% of the selective catalytic oxidation unit operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.	If the accumulated hours of deviation events occurring exceeds 5% of the selective catalytic oxidation unit operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.
III. Performance criteria		
A. Data representiveness	A pressure sensor shall be located immediately upstream and downstream of the catalyst bed. The pressure drop sensor shall be accurate to within ±0.25 inches OR 0.25% of the measurement range of the instruments	A temperature sensor shall be located immediately upstream of the catalyst bed. The facility shall develop a site specific monitoring plan for the temperature sensor that meets the specifications found in 40 CFR 63.6625(b)(1)(i) through (v). A copy of this plan shall be kept onsite in a form suitable for inspection. The temperature sensor shall have a minimum tolerance of ±5°F, or 1% of the measurement range, whichever is larger.
B. Verification of operational status	Not applicable	Not applicable

Each Selective Catalytic Converter

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Monitoring approach:	*Periodic Monitoring*	*Compliance Assurance Monitoring [CAM]*
I. Indicator	**Pressure drop across catalyst bed**	**Inlet temperature of catalyst bed**
C. QA/QC practices & criteria	Each pressure sensor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately. If a sensor fails its calibration test, the monitor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.	Each temperature sensor shall be evaluated at least annually, or at a frequency in accordance with the site specific monitoring plan to ensure that the device is properly measuring and recording the catalyst bed inlet temperature. If the sensor fails its evaluation, the monitor shall be taken out of service until repairs and/or replacements are made and a new evaluation procedure is undertaken and passed.
D. Monitoring frequency	Once per Month	Once per Day
Data collection procedure	Record: Once per Month Pressure drop measurement Record: Each occurrence Time, date and results of each calibration Time, date and results of each inspection and corrective actions taken	Record: Once per Day Instantaneous temperature Record: Each occurrence Time, date and results of each evaluation Time, date and results of each inspection and corrective actions taken
Averaging period	Instantaneous	Instantaneous

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Appendix C: NGL Treating Unit Monitoring

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NGL Treating Unit

Monitoring approach:	*Compliance Assurance Monitoring [CAM]*
I. Indicator	**Thermal oxidizer firebox temperature**
A. Measurement approach	Firebox temperature shall be monitored with a thermocouple or equivalent device continuously The firebox temperature shall be monitored with a system capable of continuously measuring the firebox temperature of the thermal oxidizer.
II. Indicator range	**Firebox temperature shall be greater than, or equal to, the temperature that was established during the latest performance test that showed compliance had been achieved.** A deviation is defined as anytime the firebox temperature falls below the temperature that was established during the latest performance test that showed that compliance had been achieved. A deviation triggers an immediate inspection and corrective actions that meets the requirements of §64.7(d) 40 CFR Part 64 and reporting within 48 hours or two work days. The minimum firebox temperature may be modified upon receipt of Departmental approval.
A QIP threshold	If the accumulated hours of excursion events occurring exceeds 5% of the NGL Treating Unit operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.
III. Performance criteria	
A. Data representiveness	Each temperature sensor shall be located within the thermal oxidizer combustion chamber or immediately downstream of the combustion chamber. The facility shall develop and maintain onsite an evaluation procedure for ensuring proper operation of each temperature sensor. Each temperature sensor shall be accurate to within ±1.0% of the range of the device
B. Verification of operational status	Not applicable
C. QA/QC practices & criteria	Each temperature sensor shall be evaluated at least annually, or at a frequency in accordance with the manufacturer's specifications, or other written procedures that provide adequate assurance that the device is properly measuring and recording the firebox temperature. If the sensor fails its evaluation, the sensor shall be taken out of service until repairs and/or replacements are made and a new evaluation procedure is undertaken and passed.

NGL Treating Unit

Monitoring approach:	*Compliance Assurance Monitoring [CAM]*
I. Indicator	**Thermal oxidizer firebox temperature**
D. Monitoring frequency	Temperature shall be measured continuously.
Data collection procedure	Record daily firebox temperature. Record evaluation results, as necessary Record inspection results and corrective actions taken.
Averaging period	Instantaneous

NGL Treating Unit Thermal Oxidizer - Opacity

Monitoring approach:	*Periodic Monitoring*
I. Indicator	**Opacity**
A. Measurement approach	Provided the NGL Treating Unit is being operated and facility operating personnel notice visible emissions in excess of the opacity standards emitted from the Thermal Oxidizer, a visual emission observation (VEO) shall be undertaken. Duration of each observation shall be >= 15 minutes and <= 60 minutes Each observation shall be conducted with either: Test Method 9 of 40 CFR Part 60 – OR – Test Method 22 of 40 CFR Part 60
II. Indicator range	**(1) No more than one 6-min. average opacity reading shall exceed 20%; OR, (2) No 6-min. average opacity reading shall exceed 40%; OR, (3) The accumulated time of observed visible emissions shall not exceed 12 minutes.** A deviation is defined as anytime the observed 6-minute average opacity exceeds 20% for the 2nd time, or 40% for the 1st time, when utilizing Method 9. A deviation is defined as anytime the accumulated time in which visible emissions were observed exceeds 12 minutes per observation when utilizing Method 22. A deviation triggers continued visible emissions observations at a frequency suitable to defining the duration of the visible emission deviation event. One observation shall be undertaken to establish the end of the visible emission deviation event. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.
III. Performance criteria	
A. Monitoring frequency	When visible emissions are noticed
Data collection procedure	Record: Each occurrence Each 15 second observation reading Record: Each occurrence – Time, date and results of corrective actions taken
Averaging period	Six minutes

Appendix D: Facility Flare Monitoring

Each Facility Flare

Monitoring approach:	*Periodic Monitoring [AGFL-1 Only]*	*Periodic Monitoring [Both Flares]*
I. Indicator	**Acid gas to Assist gas volume ratio**	**VOC emissions**
A. Measurement approach	Inlet assist gas and acid gas feed volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation or estimated utilizing material balances, computer simulations, special testing, or other approved methods.	Gas volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculations. Each stream that can feed either flare shall be analyzed annually for its VOC content & molecular weight, unless otherwise allowed by the Department. Furthermore, each analysis may be conducted at a common stream that is representative of all streams feeding the flare.
II. Indicator range	**Acid Gas to Assist Gas volume ratio shall be equal or greater than 1.0 to 0.5.** A deviation is defined as anytime the actual acid gas to assist gas ratio is less than 1.0 to 0.5. If the accumulated hours of deviation events occurring exceeds 5% of the emergency flare's operating time during a quarterly reporting period an immediate running of an air quality modeling study that utilizes the maximum inlet mass and flow rates that occurred during this period. The minimum ratio may be modified upon receipt of Departmental approval.	**For FL-1, VOC emission shall not exceed 11.82 Lbs/Hr.** **For AGFL-1, VOC emission shall not exceed:** **2.70 Lbs/Hr & 0.242 Ton/12-months** A deviation is defined as anytime the average calculated VOC emissions exceeds 11.82 Lbs/Hr for FL-1. A deviation is defined as anytime the average calculated VOC emissions exceeds 2.70 Lbs/Hr and/or 0.242 Ton/12-months for AGFL-1. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.
A QIP threshold	Not applicable	Not applicable
III. Performance criteria		
A. Data representiveness	Each volume monitor shall be located upstream of the flare and shall consist of a single device that monitors all streams or multiple devices that monitor individual or multiple streams.	The gas volume monitor shall be located immediately upstream of the flare.

Each Facility Flare

Monitoring approach:	*Periodic Monitoring [AGFL-1 Only]*	*Periodic Monitoring [Both Flares]*
I. Indicator	**Acid gas to Assist gas volume ratio**	**VOC emissions**
		VOC content for each stream that can be sent to the flares shall be determined from samples that are representative of the vapors that are being sent to the flares.
B. Verification of operational status	Not applicable	Not applicable
C. QA/QC practices & criteria	Each volume monitor shall be maintained and calibrated in accordance with the manufacturer's specifications.	Not applicable
D. Monitoring frequency	Inlet acid gas and assist volume shall be measured continuously.	Gas volume measured continuously. The VOC stream contents' analyses shall be undertaken annually.
Data collection procedure	Calculate &/or record an inlet volume that is representative of the volume entering flare. Record daily hours of operation. Calculate & record H_2S feed rate. Calculate & record SO_2 Effluent rate. Record time, date and results of each calibration. Record time, date and results of each inspection and corrective actions taken. If the deviation events during the period exceeded 5% of the time, the facility shall submit air quality modeling results to the Department within 60 days of the end of the quarterly period.	Calculate: Monthly VOC emissions while utilizing the gas volume, gas content, destruction efficiency and operating hours for each flare Record: Monthly Gas volume consumed Hours of operation VOC emissions Record: Each occurrence Each content determination Time, date and results of each inspection and corrective actions taken
Averaging period	Hourly	One month

Each Facility Flare

Monitoring approach:	*Compliance Assurance Monitoring [CAM] [Both Flares]*
I. Indicator	**Operate flare with a flame or spark present at all times when a process gas stream may be sent to it.**
A. Measurement approach	The flare tip shall be equipped either with a continuous sparking flame igniter that is monitored by an amp meter–OR– an equivalent device –OR– visual observation –OR– with a continuously burning pilot light that is monitored with either a thermocouple or an equivalent device or by visual observation.
II. Indicator range	**Presence of a flame or spark at flare tip** A deviation is defined as when there was no spark or flame present at the flare tip when a process gas stream could be vented to it. A deviation triggers an immediate inspection and corrective actions that meet the requirements of 40 CFR Part 64.7(d) and reporting within 48 hours or two work days.
A QIP threshold	If the accumulated hours of deviation events occurring exceeds 5% of the flare's operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.
III. Performance criteria	
A. Data representiveness	Each flame igniter or flame monitor shall be located at the flare tip and focused on the area where gas exits the flare tip. Visual observations shall be made from the location that provides the best view of the flare tip and/or flare pilot lights or flare igniter.
B. Verification of operational status	Not applicable
C. QA/QC practices & criteria	Each flame igniter or flame monitor shall be maintained and calibrated in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is properly maintained and calibrated accurately, –OR– at least annually, whichever is more frequent. Repairs and/or replacements shall be made immediately when non- functioning or damaged parts are found. Flame igniter shall have an arcing frequency of no greater than once every 3 seconds and the presence of a pilot monitored by a temperature sensing device.
D. Monitoring frequency	Pilot flame of the process flare shall be monitored either continuously with a thermocouple or daily with visual inspections if operating staff is on site. The acid gas flare Ignition Failure Alarm shall be logged with the date, time, cause, and corrective action.

Each Facility Flare

Monitoring approach:	*Compliance Assurance Monitoring [CAM] [Both Flares]*
I. Indicator	**Operate flare with a flame or spark present at all times when a process gas stream may be sent to it.**
Data collection procedure	Record time, date and duration of each incident of when no spark or flame was present at the flare tip when a process gas stream could have been sent to it. Record time, date and results of each visual observation. Record time, date and results of each calibration. Record time, date and results of each inspection and corrective actions taken.
Averaging period	Instantaneous

Each Facility Flare - Opacity

Monitoring approach:	*Periodic Monitoring*
I. Indicator	**Opacity**
A. Measurement approach	Provide that the flare is operating and it is being utilized to burn a gas stream other than the pilot light fuel gas stream, a daily visual inspection of the flare shall be conducted. The visual inspection shall be performed by manually conducting a visual observation of the flare during daylight hours or by using other approved methods (i.e. using a flare camera). If at any time visible emissions from the flare are emitted in excess of the opacity standards, a visual emission observation (VEO) shall be undertaken. The VEO shall be conducted as follows: Duration of each observation shall be: >= 5 minutes and <= 120 minutes Each observation shall be conducted in accordance to Test Method 22 of 40 CFR Part 60.
II. Indicator range	**The accumulated time of opacity observance shall not exceed 5 minutes during any two consecutive hour period** A deviation is defined as anytime the accumulated time exceeds 5 minutes during any observation while utilizing Method 22. A deviation triggers continued visible emissions observations at a frequency suitable to defining the duration of the visible emission deviation event. One observation shall be undertaken to establish the end of the visible emission deviation event. A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.
III. Performance criteria	
A. Monitoring frequency	Daily visual inspections, VEO as necessary for the Process Flare (FL-1) Daily visual inspections, VEO as necessary for the Acid Gas Flare (AGFL-1)
Data collection procedure	Record: Each daily inspection of the flares, and each occurrence of a visible emissions observation Total duration of the observation period Accumulated time emissions were observed Clock time observation period began and ended Any observer break time Time, date and results of corrective actions taken
Averaging period	Five minutes for VEO